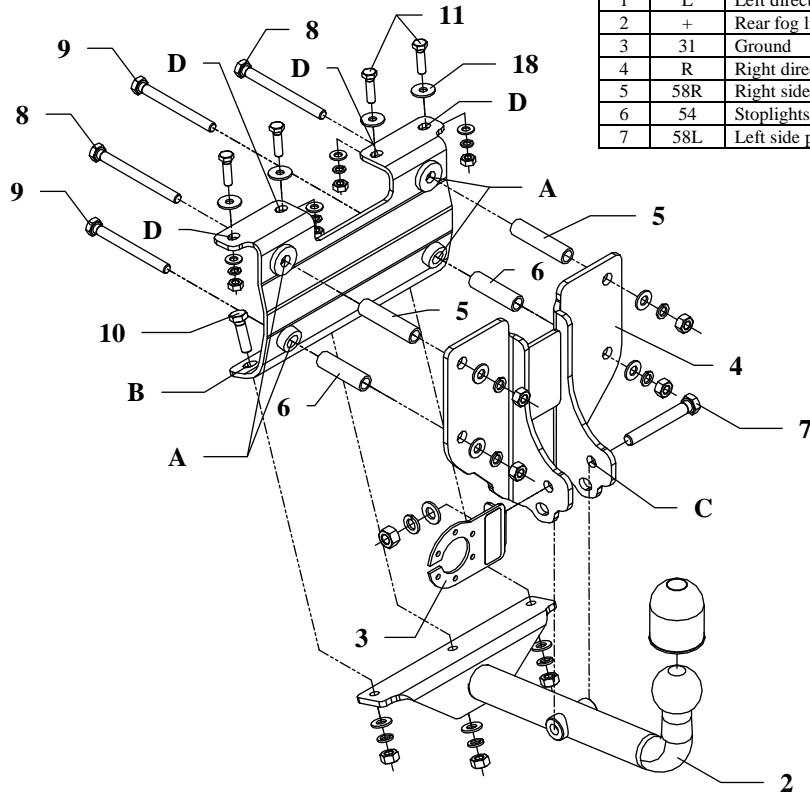


FITTING INSTRUCTION

Clamp mark in acc. with		Cables joining
ISO	PN	
1	L	Left directional lights
2	+	Rear fog lights
3	31	Ground
4	R	Right directional lights
5	58R	Right side parking lights
6	54	Stoplights
7	58L	Left side parking lights



This towing hitch is designed to assembly in following cars:
OPEL ASTRA (F) Caravan ESTATE, produced since 09.1991 till 2002, catalogue no. **E19** and is prepared to tow trailers max total weight **1500 kg** and max vertical mass **75 kg**.

From manufacturer

Thank you for buying our product. Their reliability has been confirmed in many tests. Reliability of towing hitch depends also on correct assembly and right operation. For this reasons we kindly ask to read carefully this instruction and apply to hints.

The towing hitch should be install in points described by a car producer.

The instruction of the assembly

1. Disassemble the bumper and take out from boot the spare wheel.
2. In the rear plate of the car (from the outside) the places appointed by the car producer and then drill four holes $\varnothing 17\text{mm}$. For a better orientate apply the ball bracket (pos. 4) to the chassis.
3. Apply inside the boot the main plate of the towing hitch (pos. 1) and across the previously drilled holes, the distance sleeves (pos. 5 and 6) and the holes A fix with bolts M10x110mm (pos. 8) and M10x100mm (pos. 9) with the applied from outside the rear plate of the car, element (pos. 4).
4. From inside the boot and across the three holes B of the element (pos. 1) drill to $\varnothing 12\text{mm}$ hole in the floor of niche of the wheel and twist with bolts M10x35mm (pos. 10) with the tow-ball (pos. 2) applied under the car.
5. Fix with bolt M12x85mm (pos. 7) the tow-ball (pos. 2) and socket plate (pos. 3) by the hole C.
6. Fix bolts M8x30mm (pos. 11) through holes D and the existing holes inside the boot.
7. Before installing the bumper, cut out in its longitudinal axis of symmetry, in the bottom edge, a fragment 70x35mm.
8. Tighten all bolts according to the torque shown in the table.
9. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station).
10. Complete paint layer damaged during installation.

Torque settings for nuts and bolts (8,8):

M 8 - 25 Nm	M 10 - 55 Nm
M 12 - 85 Nm	M 14 - 135 Nm

NOTE

After install the towing hitch you should get adequate note in registration book (at authorised service station). The car should be equipped with:

- Indicators
- Tow mirrors

After 1000km of exploitation check all bolts and nuts. The ball of towing hitch must be always kept clear and conserve with a grease.

Towing hitch accessories:

Pos. 1 Main plate PCS.: 1	Pos. 5 Distance sleeve ø17.2x2.35mm L=72mm PCS.: 2	Pos. 11 Bolt 8,8 B M8x30mm PCS.: 4	Pos. 17 Plain washer ø8mm PCS.: 4
Pos. 2 Tow ball PCS.: 1	Pos. 6 Distance sleeve ø17.2x2.35mm L=60mm PCS.: 2	Pos. 12 Nut 8 B M12 PCS.: 1	Pos. 18 Washer ø24xø8.4x2mm PCS.: 4
Pos. 3 Socket plate PCS.: 1	Pos. 7 Bolt 8,8 B M12x85mm PCS.: 1	Pos. 13 Nut 8 B M10 PCS.: 7	Pos. 19 Spring washer ø12mm PCS.: 1
Pos. 4 Ball bracket PCS.: 1	Pos. 8 Bolt 8,8 B M10x110mm PCS.: 2	Pos. 14 Nut 8 B M8 PCS.: 4	Pos. 20 Spring washer ø10mm PCS.: 7
	Pos. 9 Bolt 8,8 B M10x100mm PCS.: 2	Pos. 15 Plain washer ø12mm PCS.: 1	Pos. 21 Spring washer ø8mm PCS.: 4
	Pos. 10 Bolt 8,8 B M10x35mm PCS.: 3	Pos. 16 Plain washer ø10mm PCS.: 7	Pos. 22 Ball cover PCS.: 1



PPUH AUTO-HAK S.J.

Produkcja Zaczepów Kulowych
Henryk & Zbigniew Nejman
76-200 SŁUPSK ul. Słoneczna 16K
tel/fax (059) 8-414-414; 8-414-413
E-mail: office@autohak.com.pl
www.autohak.com.pl

Towing hitch (without electrical set)

Class: **A50-X** Cat. no. **E19**

Designed for:

Manufacturer: **OPEL**

Model: **ASTRA (F) Caravan**

Type: **ESTATE**

produced since 09.1991 till 2002

Technical data:

D-value: 7,59 kN

maximum trailer weight: **1500 kg**

maximum vertical cup mass: **75 kg**

Approval number acc. to regulations EKG/ONZ 55.01: E20-55R-01 1460

Foreword

This towing hitch is designed according to rules of safety traffic regulations. The towing hitch is a safety component and can be install only by qualified personnel. Any alteration or conversion of the towing hitch is prohibited and would lead to cancellation of design certification. Remove insulating compound and underseal from vehicle (if present) in the area of the matting surfaces of the towing hitch. The vehicle manufacturer's specifications regarding trailer mass and max. vertical cup mass are decisive for driving whereat values for the towing hitch cannot be exceeded.

D-value formula:

$$\frac{\text{Max trailer weight [kg]} \times \text{Max vehicle weight [kg]}}{\text{Max trailer weight [kg]} + \text{Max vehicle weight [kg]}} \times \frac{9,81}{1000} = D \text{ [kN]}$$